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**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY**

**In the Matter of**

**Application of Ameritech  
Michigan Pursuant to Section  
271 of the Telecommunications  
Act of 1996 to Provide In-  
Region, InterLATA Services in  
Michigan**

CC Docket No. 97-137

# Reply Affidavit of Timothy Jenkins on Behalf of Ameritech Michigan

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### **AFFIDAVIT OF TIMOTHY J. JENKINS**

I, Timothy J. Jenkins, being first duly sworn upon oath, do hereby state as follows:

1. My name is Timothy J. Jenkins. My title is Director, 9-1-1 Operations. My Business address is 150 E. Gay St., Room 4F, Columbus, Ohio 43215.
2. As Director, 9-1-1 Operations, I have responsibility for a broad spectrum of activities related to the provision and ongoing support of 9-1-1 services throughout the Ameritech region. Activities include: project management of 9-1-1 network installation and maintenance, project management and coordination of Public Safety Answering Point premises equipment, 9-1-1 database development and maintenance, 9-1-1 systems interface development and support, and overall direct customer service support including assistance for emergency outage identification and restoration.
3. I began my employment at Ohio Bell Telephone Company, now Ameritech, in 1985 as an Associate Manager in Installation and Maintenance as a part of Ohio Bell's College Management Program. My responsibilities included coordination and management of a team of technicians responsible for the installation and maintenance of major Centrex accounts in the Columbus, metropolitan area. In 1986, I was appointed to the position of Associate Manager in the Cable Maintenance and Air Pressurization department, with responsibility for supervising Cable Technicians.
4. In 1987, I was appointed to the position of Assistant Manager, Outside Plant Analysis in the Installation and Maintenance District, with responsibility for analysis of trouble reports and preparing recommendations for rehabilitation of cable facilities. In addition, I was responsible for resolving customer complaints made to Executive Appeals and the Public Utility Commission of Ohio for the

Columbus Metropolitan area. In 1988, I transferred to the Outside Plant Engineering District as Rehabilitation Engineer with responsibilities for designing and obtaining funding to rehabilitate or replace deteriorating cable facilities.

5. In 1989, I was promoted to the position of Manager, Minicomputer Systems Administration in Network Services, with responsibilities for managing the ongoing operation and support of multiple minicomputer systems serving both internal Ameritech users and external Ameritech customers.
6. In 1993, I was named Manager, 9-1-1 Operations, with responsibilities of managing the implementation and ongoing service for county and community 9-1-1 services throughout the Ameritech region. In addition, my responsibilities included the development and maintenance of the databases serving the 9-1-1 Public Safety customers. In 1995, I was promoted to Director, 9-1-1 Operations, with additional responsibilities for development and support as noted above.
7. In 1985, I received a Bachelor of Science degree from Ohio Northern University in Electrical Engineering with a minor in Business Administration. In 1989, I received a Masters in Business Administration from Ohio State University.

## **INTRODUCTION**

8. The purpose of this affidavit is to respond to comments made by certain parties regarding Ameritech's provision of 9-1-1 service, especially in regard to interconnection with Competitive Local Exchange Carriers (CLECs) for purposes of completing their end-users' 9-1-1 calls.
9. I will first discuss what 9-1-1 service is and how it works. Second, I will discuss how CLECs interconnect with Ameritech to provide access to 9-1-1 service for their end-users. Third, I will discuss actions taken by Ameritech, over and above normal processes, to address database accuracy in light of events in Southfield,

Michigan.

10. Finally, in the last section of this affidavit I will respond to specific comments made by the Michigan Public Service Commission (MPSC) (pp. 41-44), TCG (pp. 20-25; Pelletier Aff., ¶ 30), MFS WorldCom (Schroeder Aff., pp. 11-15), and Brooks Fiber (pp. 26-28). My affidavit also generally responds to Department of Justice's statement (pp. 9-10 n.16) that it does not have enough information to determine whether Ameritech has met the checklist regarding 9-1-1 service. My response to these complaints may be summarized as follows.
11. I will demonstrate that the comments of the MPSC stating that Ameritech is not providing adequate access or interconnection to 9-1-1 service for CLECs are unfounded. Ameritech has fulfilled its obligations under its contractual arrangements and statutory requirements for CLEC interconnection to 9-1-1 service in a nondiscriminatory manner. Ameritech has provided the types of access contracted for and has begun development of new services to meet recent CLEC requests. Additionally, I will discuss the extensive actions Ameritech has undertaken to address identified discrepancies with CLEC end user data in the 9-1-1 database.
12. I will show that TCG's and MFS's representations of incidents relating to 9-1-1 service in Southfield, Michigan omit important facts. Ameritech did immediately respond and cooperatively work with TCG to address concerns regarding TCG end user data in the 9-1-1 database. Ameritech also took immediate action to diagnose and correct any discrepancies with MFS end user data.
13. I will demonstrate that Brooks Fiber's complaints of Ameritech acting in a discriminatory and anti-competitive manner relative to 9-1-1 service are unfounded and omit important parts of the entire story. Ameritech acted appropriately in the provisioning of Brooks Fiber's 9-1-1 trunks. Ameritech has also been providing Brooks Fiber with a specially developed mechanized access

to the 9-1-1 database to meet its particular needs.

14. I will demonstrate that Ameritech has provided 9-1-1 interconnection services to CLECs on a non-discriminatory basis and has fulfilled its obligations and requirements for 9-1-1 interconnection under the Telecommunications Act of 1996 (TA96) and the 9-1-1 interconnection agreements reached with CLECs.
15. In sum, I will demonstrate that Ameritech has met its requirements for 9-1-1 interconnection as delineated in the competitive checklist required by TA96 to enter the long distance arena. The competitive checklist requires that Ameritech Michigan provide competing providers with "Nondiscriminatory access to—(I) 911 and E911 services." Ameritech has. CLECs interconnect to Ameritech's 9-1-1 service in the same manner and at the same level of quality as Ameritech.

#### **HOW 9-1-1 SERVICE WORKS**

16. 9-1-1 service is provided to private and public safety agencies and enables a caller to reach a Public Safety Answering Point (PSAP) by dialing the digits 9-1-1. A 9-1-1 system is intended to assist private and public safety agencies which provide firefighting, law enforcement, medical, ambulance or other emergency services through trunking arrangements directing incoming calls from the public switched network to PSAP locations.
17. In Michigan today, Ameritech provides Enhanced 9-1-1 (E9-1-1) service via its 9-1-1 tariff, which is attached as Jenkins Schedule 1.<sup>1</sup> The term "enhanced" comes from the ability of this service to enhance the delivery of the 9-1-1 call to the PSAP. The service contains many standard features, which include: Default Routing (routes an incoming 9-1-1 call to a default PSAP when it cannot be selectively routed due to an Automatic Number Identification (ANI) failure,

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<sup>1</sup> Today, Ameritech still provides Basic 9-1-1 service to one 9-1-1 district in Michigan. B9-1-1 service has been grandfathered in Ameritech's tariffs.

garbled digits or other cause);<sup>2</sup> Alternate Routing (routes an incoming 9-1-1 call to an alternate PSAP if all trunks are busy or the primary PSAP closes down); and Central Office Transfer Arrangements (which allow transfer of a call to another access line via conference circuits).

18. E9-1-1 also has optional features available for municipalities to purchase for their PSAPs. These optional features include ANI, Automatic Location Identification (ALI), and Selective Routing (SR). A PSAP customer may choose to buy one or more of these features, or none at all. ANI service forwards the telephone number used by the 9-1-1 caller to the PSAP. Selective routing allows for multiple answering points within a county's or municipality's 9-1-1 system. That is, a single 9-1-1 district may have multiple answering points within it. Based on the ANI, the 9-1-1 call is forwarded to the appropriate PSAP as defined by the emergency service customer. ALI service forwards the name and address associated with the telephone used by the 9-1-1 caller to the PSAP based on the ANI.
19. The E9-1-1 system is very complex. The elements included in the system (which are at the PSAP Premises) are the ANI Control Equipment, ALI multiplexing or MUX, and other station equipment. Other elements of the E9-1-1 System are the Selective Routing Control Office, MS (Management System), and the SR/ALI databases which provide routing, name, address and phone number information. A diagram depicting E9-1-1 System Components is attached as Jenkins Schedule 2.
20. The following explains how an E9-1-1 call is processed. As Jenkins Schedule 2 shows at the top left hand corner, the E9-1-1 call begins when an end-user dials 9-1-1. The call is first handled by the end-user's serving central office, which is

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<sup>2</sup> Note that with Default Routing there will not be a display of ALI information at the PSAP.

delineated as "END OFC" on the diagram. The END OFC (central office) then routes the call to the 9-1-1 control office, shown as CONTROL OFFICE on the diagram.

21. When using Enhanced 9-1-1 or E9-1-1 service, the Control Office queries the Selective Routing Database (shown as SR/ALI database) to determine to which PSAP the call should be directed. The Selective Routing Database looks at the end-user's telephone number (the ANI) and determines which PSAP receives the call based upon that number.
22. At this point, the ANI information, as well as the call itself, is transmitted to the PSAP over dedicated circuits. That is, the phone number of the calling party is passed to the PSAP. If the PSAP is equipped for ALI, then the ANI Control Equipment looks up the ALI information in the SR/ALI database for the ANI passed and displays the information on the equipment used by the PSAP. If a system is equipped with both ANI and ALI, the PSAP will generally have the capacity to display the phone number, the physical location, and customer name associated with the phone number on its equipment.
23. Ameritech maintains the MS (Management System) and SR/ALI databases when requested by the 9-1-1 customer, i.e. the 9-1-1 district (the county or municipality). That is, an E9-1-1 district can choose to have this Ameritech service with all, a few or none of the components shown on Jenkins Schedule 1. Ameritech receives continuing input from the E9-1-1 Districts, Ameritech's billing and order entry systems, and input from other telephone companies in order to keep these databases updated.
24. As can be seen, the 9-1-1 database (as it is referred to by many parties) is only one element of the entire E9-1-1 service. The "9-1-1 database" actually consists of two separate databases that are integral to the operation of the E9-1-1 Service.



25. The first part of the 9-1-1 database is the MS which contains the MSAG (Master Street Address Guide). This database contains street information with address ranges and the routing information for the responding Public Safety Agencies. In other words, the street address ranges are mapped to the responding PSAPs as identified by the County 9-1-1 coordinator. This information is provided to Ameritech by the County 9-1-1 Coordinator and is directly input to this database based on the information received. Responsibility for the accuracy of the MSAG lies with the County 9-1-1 Coordinator.
26. The MS database is used to validate a 9-1-1 service update record, which includes the customer name, address, and telephone number, obtained from Ameritech or via file transfer from another carrier, such as a CLEC. As the record is passed to the MS, an inquiry is made to validate the address in the MS database. If the inquiry shows that the record matches a valid address within the MSAG, then a record is produced to be input into the SR/ALI database. This record, which contains the updated end-user information, will also have routing information added to it from the MSAG. A file containing these records is prepared to update the SR/ALI. If the record does not contain a valid address, then an entry to the error file is made and a manual correction process is used. If this data comes from a provider other than Ameritech, the error file is returned to the company for correction. Errors may also be sent to PSAPs or counties for resolution as needed.
27. The SR/ALI is the database that contains the formatted information for display at the PSAP. When a 9-1-1 call is made, a dip (or bid) is made into the SR/ALI database regarding the telephone number (ANI) associated with the telephone used to place the 9-1-1 call and the information is forwarded to the responding agency for display.
28. As can be seen in Jenkins Schedule 3, the Michigan 9-1-1 database is a large and dynamic database. It contains approximately 6.8 million records, and over

200,000 changes to those records are processed each and every month.

29. Although Ameritech strives for 100% database accuracy for its E9-1-1 service offering, the Company has set an objective, region-wide, for 99% database accuracy. This objective recognizes that a complex system, such as E9-1-1, will never be error free because of on-going order churn, and that even with the most stringent quality controls, a certain number of errors will occur. This standard for measurement is supported by the National Emergency Number Association (NENA).<sup>3</sup>
30. The basic design of the E9-1-1 system itself anticipates that there could be system and information failures. There are a number of safeguards implemented in the system design to correct for such failures. Examples include the standard features of default and alternate routing, which allow a 9-1-1 call to be delivered to a designated "default" PSAP to increase the likelihood that the call is answered when the primary PSAP cannot answer. The default or alternate routing can be programmed at the end office, trunk, or NXX level. Another example is the "trouble ticket" or "database inquiry form" used by PSAP personnel to report to Ameritech when they perceive any misfunction. Additionally, APCO (Association of Public Communications Officials) Institute, one of the leading national providers of PSAP personnel training, recognizes that the data displayed at a PSAP may not be an accurate depiction of the caller's identity or the location of the incident requiring assistance. For example, a neighbor not at the location of an incident could be calling to report the incident. Consequently, in training PSAP personnel, APCO stresses that verification of such information is mandatory for 9-1-1 call takers/dispatchers.
31. Ameritech has also implemented a number of processes and procedures to

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<sup>3</sup> Illinois is the only state in the Ameritech region that has set a standard for 9-1-1 database accuracy; that standard is 99%.

address and further improve database accuracy and integrity. Some of these processes and procedures are performed as a matter of daily routine in processing updates to the 9-1-1 database. The remaining processes and procedures are performed on the database as a whole. These processes and procedures were described by Mr. Mayer in his affidavit (Exhibit 2.8, ¶¶ 230-259) and are contained in the document entitled "9-1-1 Database Integrity: Processes in a Multiple Exchange Provider Environment", which has been included as Jenkins Schedule 4. While this document was written to be a tool that could be used by another provider, such as a CLEC, it portrays the same checks, balances, and verification procedures that Ameritech uses on the database as a whole.

32. As can be seen in Jenkins Schedule 3, the Michigan 9-1-1 database has an exceptional accuracy rate -- 99.8%. The accuracy measurement is determined by dividing the number of trouble tickets received from PSAPs by the number of ALI bids or dips.
33. Based on my experience with trouble tickets, the 99.8% is an understatement of Ameritech's true accuracy rate. Many trouble tickets submitted by PSAPs are not truly database trouble. Trouble tickets can stem from overflow conditions causing alternate or default routing to trigger. Also, the 9-1-1 database may be accurate, but the display screen may not appear for reasons such as an ANI failure. Additionally, trouble tickets can result from incorrect information being given by the calling party or mistakenly taken down by the call-taker; for example, where the calling party places a 9-1-1 call from a fax line but gives a main office number to the call-taker. Also, if the caller's location has been assigned a direct inward dialing number, the caller may give a number different from that appearing on the PSAP display. Another example is when a trouble ticket is issued with an accurate but not descriptive name of the business; i.e., the customer may be identified to Ameritech as an incorporated business, but the PSAP desires the ALI display to indicate that the business is a "Mobil" gas station.

34. In provisioning E9-1-1 service, Ameritech's service and accuracy levels are of the highest quality. Ameritech strives for perfection, but to legally require perfection would be unrealistic and unreasonable. Ameritech has instituted a number of checks, balances, and verification procedures to address database integrity and is continuously searching for process improvements.
35. The processes, checks, balances, and verification procedures I have just described are used on records provided by Ameritech as well as those provided by CLECs and independent telephone companies. In these latter cases, of course, the accuracy of the database is dependent on the quality of the service records provided by the other carriers.

#### **HOW NONDISCRIMINATORY 9-1-1 INTERCONNECTION AND DATABASE ACCESS ARE PROVIDED TO CLECS**

36. Ameritech provides for 9-1-1 interconnection to CLECs which enables a CLEC to provide access to 9-1-1 service for its end users. If a CLEC is provisioning local service via resale of Ameritech services, the ability to access 9-1-1 service is inherent in the resold service. If a CLEC is provisioning local service via facilities it supplies itself (i.e., its switch), then it can physically interconnect with Ameritech in order to complete its end users' 9-1-1 calls. In that case, the CLEC provides input regarding its end users directly to the 9-1-1 database. This situation is handled via a separate 9-1-1 interconnection agreement between the CLEC and Ameritech.
37. Today, the following carriers have chosen to physically interconnect with Ameritech for provision of 9-1-1 service to its end-users in Michigan: MFS, WorldCom, MCI Metro, TCG, Brooks Fiber, and Phone Michigan. Two key aspects of providing 9-1-1 service are establishing and testing trunks and populating and updating the 9-1-1 databases.

38. The provision of 9-1-1 service must be a cooperative effort among multiple local service providers. Toward that end, Ameritech assists CLECs in provisioning 9-1-1 access to their end users. Ameritech 9-1-1 Operations personnel meet with CLEC representatives to discuss 9-1-1 issues and educate them on the requirements of 9-1-1 interconnection. This includes planning for trunk installation and testing and provisions for 9-1-1 database updates. The specific flow process for trunk installation and testing is included in Appendix C of Jenkins Schedule 4. The process flow for database activity is included in the Exhibit to Jenkins Schedule 4. Additionally, Ameritech played a lead role in an industry forum sponsored by the Michigan Emergency Telephone Service Committee (ETSC), which was designed to provide CLECs and other interested parties with information on how 9-1-1 interconnection works.

39. The 9-1-1 interconnection agreements reflect mutual agreement by both parties (the CLEC and Ameritech). In Michigan, none of the terms or conditions of these agreements resulted from arbitration. By entering into these agreements, each CLEC chose to provide access to 9-1-1 for its end users via Ameritech. As an alternative, the CLEC could set up its own 9-1-1 service and negotiate connections and other arrangements with each of the municipalities involved.

**A. Trunking and Testing for 9-1-1 Service**

40. Ameritech's 9-1-1 interconnection provides trunking from the CLEC's collocation point in an Ameritech office to the appropriate 9-1-1 control offices (also known as routers). The number of trunks provisioned is based on the number of telephone numbers or lines of the CLEC included in the 9-1-1 database, as this represents the potential volumes for 9-1-1 calls.

41. The testing procedures for 9-1-1 trunks involve two types of tests. First, continuity testing is completed; that is, the trunks are tested at both ends to determine if the trunk is functioning properly. Second, call-through testing is completed; that is, test calls are placed from the end-office where the traffic

originates to each of the involved PSAPs to determine if the selective routing and ALI features are functioning properly and that transmission quality is sustained. The testing procedures Ameritech requires on CLEC 9-1-1 trunks are the same testing procedures it requires of its own new trunk installations for itself or for PSAPs. Therefore, Ameritech's testing of 9-1-1 trunks is performed in a non-discriminatory manner.

42. When providing physical interconnection for 9-1-1 service, the responsibilities are as follows. Ameritech assists the CLEC in determining the minimum number of trunks necessary, makes arrangements for ordering those trunks and for timely delivery, and jointly tests those trunks with the CLEC. The CLEC is responsible for providing accurate forecasts to assist in determining the number of trunks and cooperatively testing the trunks, which includes provision of test data for the database. After installation is complete, continuity testing is conducted jointly by Ameritech and the CLEC on the trunks to determine if they are functioning properly. Then call-through testing is performed to the PSAPs involved for the CLEC's service area. This involves not only the joint effort of Ameritech and the CLEC, but also the PSAP. Test data for the database is required so that complete call-through testing can be performed; that is, to test the proper routing of the calls and the ALI display. Both parties are also responsible for monitoring the trunks and promptly reporting any outages within a specific period of time.

#### **B. Maintaining The 9-1-1 Databases**

43. The basic responsibilities related to the 9-1-1 database are as follows. The CLEC is responsible for delivering accurate and complete end user information to Ameritech. Ameritech is responsible for inputting that data into the database and then to maintain the provided data in the database. Ameritech also serves in a coordination role for error resolution.
44. With regard to CLEC "access" to the 9-1-1 database, there are two basic paths

that are followed to place CLEC end-user data in the 9-1-1 database. Which path is followed depends on how the CLEC end-user is served -- via resale of Ameritech's services (Ameritech is the dialtone provider) or via the facilities (switch) of the CLEC (the CLEC is the dialtone provider). A CLEC may elect to use one or both paths.

45. When using resale, the CLEC is responsible for providing accurate and complete end user information at the time it places an order with Ameritech for service. The CLEC end user information is stored in Ameritech's order and billing records and is forwarded to the 9-1-1 database using the same process as information for Ameritech end-user data from Ameritech's retail orders. Therefore, under the resale scenario, the CLECs have the same access to the database as Ameritech.
46. When providing its own dialtone, the CLEC again is responsible for preparing and delivering accurate and complete end user data to the 9-1-1 database, but in this instance the CLEC delivers its data directly to the 9-1-1 system. The CLEC may use a mechanized method; that is, provide a data file in the standard NENA format (an industry standard) containing all of its end-user data and updates. The data file is placed by the CLEC at the Ameritech gateway, the point where the 9-1-1 system picks up its update files to process. This is the same procedure used by Ameritech for its retail end-user data; that is, Ameritech prepares and delivers end user data to the 9-1-1 database via the gateway. Therefore, the CLECs once again have the same access to the database as Ameritech.
47. For purposes of this database functionality, the CLEC has several options for updating its end user information in the 9-1-1 database. Ameritech's preferred methodology is to have the CLEC electronically transmit database updates to Ameritech's gateway in the NENA 2 standard format. The data is then mechanically entered into the 9-1-1 database. This methodology significantly reduces the prospect of potential human error (from both Ameritech and the

CLEC) that could affect the integrity of the database. The next method is for the CLEC to provide manual updates for end-user data. In this instance, CLEC personnel complete a standard form with the necessary data and fax it to Ameritech. The data is then manually input to the database by Ameritech's vendor. A third option is for the CLEC to contract directly with Ameritech's database vendor (SCC Communications Corporation or SCC) for its clearinghouse services. This clearinghouse service provides the CLEC with service order pre-validation before submission to Ameritech's 9-1-1 system; investigation and resolution of rejected record updates; and investigation and resolution of PSAP trouble tickets on telephone numbers serviced by a CLEC subscribing to the clearinghouse service. Other data service providers may also offer similar data formatting and submission services.

48. Ameritech also provides CLECs with Addressing and Routing Files (ARF) that contain the street guide and router information for the areas they are serving. The ARF is an extract from the MSAG database. This file can be used by a CLEC in its service order process to validate their end user address data. Therefore, CLECs are provided the same type of information that Ameritech uses to validate its 9-1-1 update records before sending them to the gateway. Jenkins Schedule 6 lists the CLECs to whom Ameritech has provided an ARF.

#### **AMERITECH HAS FULFILLED ITS DUTIES DELINEATED IN THE 9-1-1 INTERCONNECTION AGREEMENTS**

49. The 9-1-1 interconnection agreements that Ameritech has entered into with CLECs were included in Ameritech's May 21, 1997 application that initiated this proceeding. Ameritech currently has 9-1-1 interconnection agreements with several CLECs, including MFS WorldCom, Brooks Fiber, TCG, AT&T, MCIMetro, and Sprint.
50. The 9-1-1 interconnection agreements require that Ameritech complete



installation of trunks within 20 days of a CLEC request. Ameritech has generally met that requirement under the terms of the 9-1-1 interconnection agreements. Jenkins Schedule 5 contains a summary of the installation intervals achieved under the current 9-1-1 interconnection agreements. If the CLEC forwards the ANI information to the 9-1-1 control office, Ameritech has forwarded such information to the PSAP as required. To my knowledge, there has been no escalation of a problem related to ANI failure associated with CLECs. As discussed above, Ameritech has provided ARFs as requested.

51. In addition, Ameritech has provided the CLECs with the electronic formats necessary to submit data. As stated before, Ameritech utilizes the NENA standard formats for data exchange. A reference of these formats was included as Appendix E of the document developed by Ameritech entitled "9-1-1 Database Integrity: Processes in a Multiple Local Exchange Provider Environment," which has been included in Jenkins Schedule 4. This document was distributed to all CLECs licensed as of December 1, 1996 and was reviewed at the Michigan Industry Forum noted above.<sup>4</sup>
52. Ameritech also has performed its duties with respect to the input and update of CLEC end user data in the 9-1-1 database. These efforts include processing of manual and mechanized inputs and coordinating error resolution.
53. For CLECs that provide their input on a mechanized basis, Ameritech has processed their inputs within 1 business day as required. The processing of each input file generally begins shortly (within an hour) after it is received at the gateway. Jenkins Schedule 8 contains data showing the average elapsed time for files received by month by company, including Ameritech. Elapsed time represents the amount of time from placement of the file at the gateway to

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<sup>4</sup> It should also be noted that industry comment was solicited and received on this document in the November-December, 1996 timeframe. Jenkins Schedule 7 lists all parties solicited for comments.

completion of processing. As can be seen by the data, all files were processed within 1 business day when received with all necessary information.

54. Ameritech also has provided these CLECs with a report summarizing the file processing. There was a breakdown in the provision of this report to Brooks Fiber for a period of time, Ameritech worked immediately to reinstate it when the breakdown was brought to Ameritech's attention on April 25, 1997 at the Michigan Industry Forum.<sup>5</sup> A sample of this report is contained in Appendix D of Jenkins Schedule 4.
55. Although not required to do so under the 9-1-1 interconnection agreements, Ameritech also is developing a report to be provided to CLECs summarizing the manual inputs for each CLEC on a business day. We expect to have this reporting mechanism in place no later than July 10, 1997.
56. Ameritech has fulfilled its roll as a "coordinator" for error resolution as prescribed in the 9-1-1 interconnection agreements, reporting back any CLEC errors that may have fallen out after an attempted input. Ameritech identifies the type of error to assist the CLEC in determining how to correct the error. In addition, Ameritech or Ameritech's vendor is available in the event the CLEC requests additional assistance in investigating an error. Ameritech has also made special provisions for CLECs, when necessary, in dealing with error resolution. For example, recently Brooks Fiber submitted on a single day, in a single submission, a very large file of updates to the database (approximately 24,000 records, when their average file size has been 400 records). In processing these updates, approximately 13,000 of the records errored out based on the 9-1-1 system's edit checks. The majority of these errors resulted from the attempted restructuring of Brooks Fiber's pilot telephone numbers. The old pilot numbers

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<sup>5</sup> The breakdown in reports began in the October 1996 timeframe, when full operations of the 9-1-1 database were transferred to Ameritech's vendor.

had not yet been "disconnected" in the 9-1-1 database and, therefore, the new structure could not be processed. Based on Brooks Fiber's request, Ameritech's vendor prepared an electronic file containing records to assist Brooks Fiber to produce the necessary database updates to "disconnect" the pilot numbers in the 9-1-1 database. This special request was fulfilled within two business days. Of course, the normal version of the error list was available the next business day from receipt of the input. Additionally, Ameritech also assists CLECs in the investigation and resolution of errors that are reported via trouble tickets by PSAPs.

**AMERITECH HAS TAKEN SUBSTANTIAL EXTRA MEASURES TO  
MAINTAIN ACCURACY IN THE 9-1-1 DATABASE: THE SOUTHFIELD  
COMPLAINT**

57. As I discuss later, most of the 9-1-1 concerns raised by parties in this proceeding relate to the 9-1-1 database and the City of Southfield's complaint to the MPSC. Based on the issues raised by the City of Southfield before and during its complaint proceeding at the MPSC, Ameritech took immediate action to identify and address any problems associated with CLEC end user data in the 9-1-1 database. Some of the measures outlined here are beyond what Ameritech performs for its own end user data and exceeds its responsibilities under the 9-1-1 interconnection agreements. They were implemented because accuracy of the 9-1-1 database is Ameritech's primary objective.
58. The City of Southfield identified a problem with some data from two of the CLECs operating there: TCG and MFS WorldCom. In Southfield, TCG's end users are provisioned using TCG's own switch. The problem with TCG end user 9-1-1 calls was that, in some instances, TCG was appearing on the PSAP display as the end user name and TCG's collocation address was appearing as the end user address. In the situation of MFS WorldCom, whose end users were provisioned using Ameritech's Centrex resale service, MFS was appearing on the PSAP display as the end user name and its former billing address was appearing

as the end user's address.

59. Ameritech immediately went to work to solve these problems. As part of the Front End Processes Analysis normally performed by the 9-1-1 operations group, a part of the root cause for the situation was identified in Ameritech Michigan's billing system. At the time when TCG was assigned NXX's for its use, Ameritech Michigan's billing system automatically generated orders to reserve those telephone number (TNs); these orders flowed through to the 9-1-1 database and populated the TNs with TCG's name and Ameritech Michigan's Central Office address where TCG was collocated. Once it was discovered, this problem was immediately corrected.
60. Ameritech determined that the most prudent course of action would be to reload the TCG data in its entirety for the entire state, beginning with the 810/204 NXX in Southfield because this is where the trouble had been reported. Ameritech also determined that the best way to reload the data was to do so on a mechanized basis. TCG agreed to cooperate in performing these actions. First, Ameritech performed a "scrub" of the 9-1-1 database to remove any records that contained TCG as the end user name and its collocation address as the end user address. Ameritech then worked diligently with TCG to reload the data. Six different attempts at a mechanized data send were made by TCG, but there were various problems associated with the data format and content. During the process, due to the urgent nature of entering the corrected data into the 9-1-1 database, Ameritech and personnel from its vendor finally elected to dump the attempted mechanized sends to paper, after which they manually reloaded the data. Jenkins Schedule 9 contains a summary of the efforts undertaken to accomplish the TCG reload. Ameritech completed the reload of the data on November 11, 1996.
61. The investigation into the MFS end user situation began with a 10% sample conducted on MFS WorldCom's Southfield Centrex end users to identify the

scope of the problem. This involved a manual comparison of Ameritech's service billing records (SBRs), which contained MFS end user data, to the associated entries in the 9-1-1 database. Ameritech found that approximately 65% of the records associated with the MFS Southfield Centrex in the 9-1-1 database contained some form of data error. Primarily, the 9-1-1 database included MFS as the end user name and MFS's billing address as the end user address. The errors did not prevent a 9-1-1 call from being completed, but they did point out an area of serious concern.

62. Based on the results of the 10% sample, Ameritech committed to completing a 100% comparison for **all** of MFS' Centrexes. The Southfield Centrex is only 1 of 11 Centrexes that MFS uses. Based on the review of the 10% sample, Ameritech determined that a manual review would have to be conducted to appropriately identify any errors. Ameritech determined that errors could be corrected by adding the Different Premises Subscriber ("DPS") Field Identifier ("FID") to Ameritech's billing records. It is this DPS FID that drives the identification of end-user information downstream from Ameritech's order entry and billing system to the 9-1-1 database.
63. The review proceeded as follows. The Service Billing Records (SBRs) were printed for each Centrex. The 9-1-1 database entries for each Centrex were also printed. A team of clerks in the Ameritech Information Industry Services (AIIS) business unit then manually compared each entry on the SBR with each entry on the 9-1-1 database. First, and foremost, any needed corrections to the 9-1-1 database were submitted for immediate entry. This allowed the 9-1-1 database to be updated in the most expedient manner. Then orders were issued to add the DPS FID to each account as appropriate so that end-user information would properly flow to the 9-1-1 database and be useable in mechanized compares in the future. Ameritech found that the DPS FID was generally missing from older Centrexes and/or older locations within a Centrex; i.e., accounts that existed before development and use of the DPS FID in Michigan.

64. Ameritech expanded this manual review process to all licensed CLECs that use Centrex Resale. In addition to MFS WorldCom, this included Coast-To-Coast Communications and Building Communications, Inc. (BCI). These manual reviews and updates were completed on schedule and the results are reflected on pages 3, 14-15, and 17 of Jenkins Schedule 10. In addition, the manual review is now in progress for another CLEC (Frontier Communications), which is awaiting MPSC approval of its license.
65. Ameritech believes this manual review and update process has addressed the problems identified in Southfield. There were no reports of wrong information for this type of end user in Southfield from February 4, 1997 until May 21, 1997, as described by the MPSC in its Comments (p. 42). Upon investigation of the May 21 incident, it was determined that human error in the correction process caused that record to not be updated during the manual review process. Therefore, a second 100% verification of MFS WorldCom's Southfield Centrex was performed to determine that there were no other human errors. This has also been completed. Because of the potential for error on other Centrexes, Ameritech is performing sample checks on the other Centrexes to verify the 9-1-1 end user data is correct. Ameritech has also developed a mechanized procedure to verify that the appropriate data appears in the 9-1-1 database for resold Centrexes. Additionally, Ameritech has conducted training for involved personnel regarding the proper use of the procedures.
66. Ameritech has expanded this program of reviewing 100% of CLEC end-user data contained in the 9-1-1 database to all types of CLEC end users. For purposes of the 9-1-1 database, there are two other categories by which a CLEC may serve its end-users other than Centrex resale: wholesale resale of Ameritech's services and the CLEC using its own switch. These categories require different methods of input and updating of end-user data for the 9-1-1 database.
67. Wholesale resale involves the resale of Ameritech basic local exchange services,

other than Centrex, by the CLEC. As with Centrex resale, Ameritech is responsible for flowing the appropriate end-user information (as provided by the wholesale resale CLEC) through to the 9-1-1 database. In these instances, the DPS FID is not used as it is with Centrex resale. Rather, Ameritech's billing system retains the end-user information in the same fields as it does for its own end-users and uses a different FID, the RSID FID, to flag that it is a resold account. Due to the smaller number of records involved, Ameritech decided to perform a manual comparison for all wholesale resale records. A list of all resold accounts was produced from our billing system. This list was then compared to the 9-1-1 to detect any discrepancies. Updates to the 9-1-1 database were submitted immediately as needed. One error resulted in a referral back to a PSAP for clarification. This effort was completed in early March of 1997 and the results are contained on pages 4, 10, 13, 19 and 21 of Jenkins Schedule 10.

68. Ameritech has no information on end-users served by a CLEC's own switch regarding their current telephone service. Thus, the CLEC must provide this data directly to Ameritech's 9-1-1 database as described previously. It is up to the CLEC to provide accurate and complete updates to the Ameritech Michigan 9-1-1 database in a timely manner.
69. To complete the 100% comparison for customers of such facilities-based CLECs, it was necessary to perform a mechanized comparison of an extract of the CLEC's billing system to the entries in the 9-1-1 database for the CLEC. The CLEC provides a tape or disk or electronically transferred file of its end-user data in the NENA standard format. A computer process is then run to compare that file to the entries in the 9-1-1 database and identify all discrepancies. These discrepancies are returned to the CLEC for clarification within 1 business day of identification. The CLEC then provides the appropriate updates to the 9-1-1 database to correct the discrepancies.
70. Currently, there are four licensed CLECs that are included in this phase of the

CLEC 100% verification: Brooks Fiber, MFS, MCI Metro, and TCG.<sup>6</sup> The results of this part of the 100% CLEC comparison are reflected on pages 5 and 8 of Jenkins Schedule 10. This is the only phase of the 100% compare for CLEC data not fully completed as Ameritech is still awaiting data to perform the comparison for two of the CLECs.

71. Jenkins Schedule 10 also contains the latest correspondence with CLECs regarding this effort to complete the 100% verification of all CLEC end user data. These letters report the results to date and what Ameritech still requires of each CLEC.
72. Attempts have been made to settle the Southfield Complaint. In fact, Ameritech had reached an agreement with the City of Southfield and TCG in late January 1997. However, the MPSC Staff did not concur. Ameritech has continued settlement discussions with the MPSC Staff and other parties. To date, no final agreement has been reached.

## **ISSUES RAISED BY COMMENTERS**

### **MPSC**

73. The MPSC (p. 41) states that there was some confusion about what CLECs are interconnected for 9-1-1 service. Those CLECs are: MCI, MFS, TCG, Brooks Fiber and Phone Michigan.
74. The MPSC (p. 42) states that TCG has indicated that it does not have on-line access to the 9-1-1 database (notably, TCG does not raise this issue in its brief). At this time that is true. However, CLECs had not been provided with on-line query access because that functionality had not been requested nor was it part of the contracted services for 9-1-1 interconnection. In light of this recently expressed interest to have query access to the 9-1-1 database, Ameritech is

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<sup>6</sup> Phone Michigan is not yet providing input to the database.



developing a service which will provide CLECs with electronic, view-only access to allow them real-time data validation. It will also allow them to submit a report of identified discrepancies that need to be addressed jointly by the CLEC and the database vendor. This query access will be the same as used by Ameritech 9-1-1 personnel;<sup>7</sup> that is, it will provide the ability to query the database to review their current data. As a security and quality control measure to maintain database integrity, only the 9-1-1 database vendor has the ability to change 9-1-1 database entries on-line.

75. The MPSC (p. 42) notes two 9-1-1 incidents involving CLEC end-users where incorrect information appeared on the Southfield PSAP display. What the MPSC fails to note is the timing of these incidents and the corrective actions Ameritech has instituted to address database concerns surrounding CLEC end users. The first incident (October 12, 1996) involved a TCG end user and occurred as Ameritech was in the process of reloading TCG's 9-1-1 data. That effort is described above in paragraphs 59-60. The second incident (January 30, 1997) involved an MFS end user served via Centrex resale and occurred after Ameritech completed its 10% sample review of the MFS Southfield Centrex and was instituting the 100% verification. Moreover, in response to these incidents, Ameritech conducted a 100% comparison and verification of all CLEC end user data in the 9-1-1 database throughout Michigan.<sup>8</sup>
76. The MPSC (pp. 42-43) also refers to certain contentions by Brooks Fiber. These issues are addressed below.
77. The MPSC (pp. 43-44) states that Ameritech's coordination of data entry and error correction is not at the level envisioned by the interconnection agreements.

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<sup>7</sup> Note that only Ameritech 9-1-1 personnel have query access and Ameritech's retail sales and service employees do not.

<sup>8</sup> It should also be noted that during these time periods, Ameritech's database accuracy in Michigan was at 99.7-99.8%. (See Jenkins Schedule 3).